## Unit III

# Relational DataBase Design

#### **Relational Model**

- The Relational model uses a collection of tables to represent both data and the relationships among those data.
- Tables are also known as relations.
- Relation: made up of 2 parts:
- ➤ Instance: a table, with rows and columns.

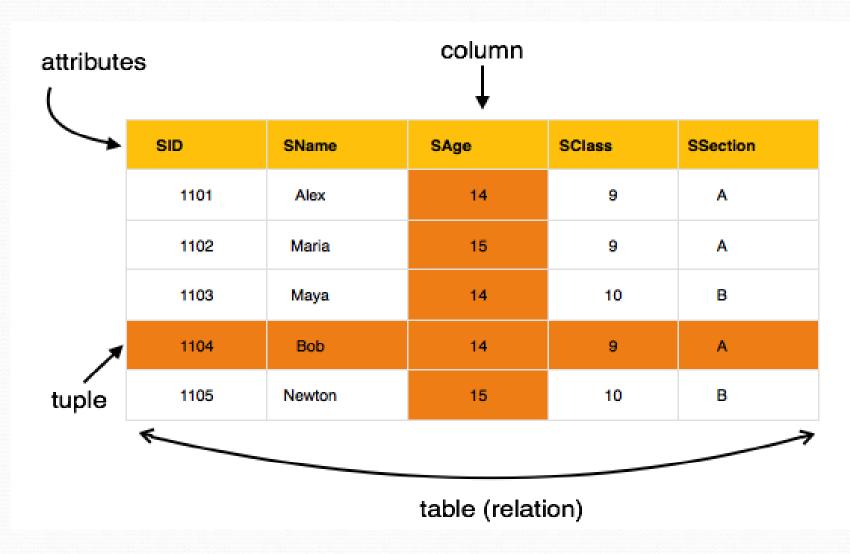
```
#rows =cardinality , #fields = degree / arity
```

>Schema: specifies name of relation, plus name and type of each column

```
E.g.: Students( sid: string, name: string, login: string, age: integer, gpa: real)
```

### **Relational Model**

Contd...



#### **Relational Model**

Contd...

- •Advantage:
- >Structural Independence
- ➤ Its simple to navigate
- ➤ Greater Flexibility
- ➤ Better Security
- Disadvantages
- **Performance**
- ➤ Data Complexity
- ➤ Hardware and Software overhead
- Physical Storage Consumption